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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,579	01/15/2004	Andrew G. Carlidge	PRP103US	5905

23623 7590 03/09/2007  
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24TH FLOOR,  
CLEVELAND, OH 44114

EXAMINER
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HASAN, MOHAMMED A

ART UNIT	PAPER NUMBER
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2873

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/758,579

Applicant(s)

CARTLIDGE ET AL.

Examiner

Mohammed Hasan

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) 34-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/15/2004.
- ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 21-33 are drawn to a particle analyzing system using gaseous medium, classified in class 351, and subclass 206.
  - II. Claims 34-40 are drawn to a method of a particle analyzing system using liquid medium, classified in class 356, subclass 73.
2. Inventions I and II are directed to related a particle analyzing system. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, a materially different design.
3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required

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because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

5. A telephone call was made to Gregor Turocy on February 28, 2007 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of invention to be examined even though the requirement be traversed (37 CFR 1.143) .

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Oath/Declaration***

7. Oath and declaration filed on 1/15/2004 is accepted.

***Information Disclosure Statement***

8. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 1/15/2004 have all been considered and made of record (note the attached copy of form PTO – 1449).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al (6,388,788 B1) in view of Blumenfeld et al (6,784,982 B1).

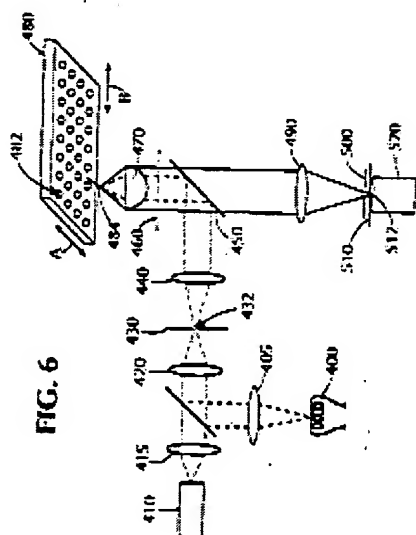
Regarding claim 21, Harris et al discloses (refer to figures 6, 1A and 15A-15C) a particle analyzing system comprising: an area for accommodating particles; an imaging for capturing image data of the particles, the imaging sensor (520) , an image transfer medium having a diffraction limited spot size in an object plane , the object positioned within the area for accommodating particles , the image transfer medium operative to unit map a projected receptor size in an object t plane to about the diffraction limited spot size in the object plane, and an analyzer coupled to the image sensor , the analyzer for characterizing the particles (column 26, lines 27-31).

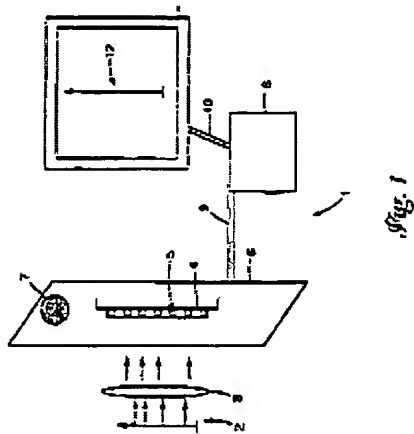
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Harris discloses all of the claimed limitations except the image sensor comprising receptors having a size.

However, Blumenfeld et al discloses, a sensor 4, having one or more receptors (5) (as shown in figure 1) (column 5, line 39-45).

It would have been obvious to one of ordinary skill in the art the time invention was made to provide a sensor with one or more receptors in to the Harris an imaging device for the purpose transmitting an image without additional circuit as taught by (column 2, lines 55-60) .





Regarding claim 22, Blumenfeld discloses, wherein the receptors comprises pixel having a pixel pitch from about 0.1 microns to about 20 microns (column 5, lines 25-45).

Regarding claim 23, Harris et al discloses, wherein the area for accommodating particles a chamber through which flows a gaseous medium comprising particles (as shown in figure 15A-15C).

Regarding claim 24, Harris et al discloses, wherein the area for accommodating particles a chamber through which flows a liquid medium comprising particles (as shown in figure 15A-15C).

Regarding claim 25, Harris et al discloses, wherein the analyzer for characterizing the particles is operative to determine at least one of particle shape, particle size, particle color, and particle transparency (as shown in figures 15A-C).

Regarding claim 26, Harris et al discloses ,wherein the analyzer for characterizing the particles comprises a processor and a data store and the analyzer is operative to compare image data of the particles with data in the data store (as shown in figure 6).

Regarding claim 27, Harris et al discloses, wherein the image data is captured in a synchronous or asynchronous manner (as shown in figure 6).

Regarding claim 28, Harris et al discloses, wherein the particle analyzing system is in air quality monitor (as shown in figure 6).

Regarding claim 29, Harris et al discloses, wherein the particle analyzing system is a clean room monitor (as shown in figure 6).

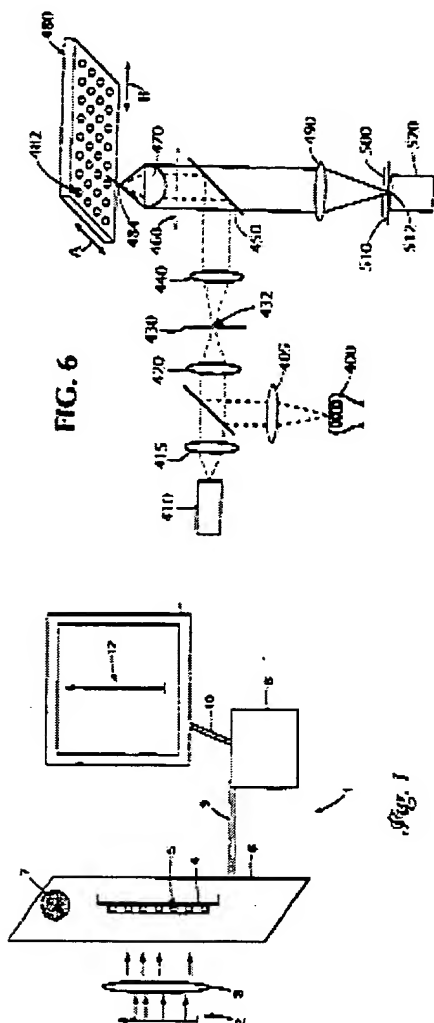
Regarding claim 30, Harris et al discloses (refer to figures 6, 1A and 15A-15C) a particle analyzing system comprising: an area for accommodating particles; an imaging for capturing image data of the particles, the imaging sensor (520), an image transfer medium having a diffraction limited spot size in an object plane, the object positioned within the area for accommodating particles, the image transfer medium operative to unit map a projected receptor size in an object plane to about the diffraction limited spot size in the object plane, and an analyzer coupled to the image sensor, the analyzer for characterizing the particles (column 26, lines 27-31).

Harris discloses all of the claimed limitations except the image sensor comprising receptors having a size.

However, Blumenfeld et al discloses, a sensor 4, having one or more receptors (5) (as shown in figure 1) (column 5, line 39-45).

It would have been obvious to one of ordinary skill in the art the time invention was made to provide a sensor with one or more receptors in to the Harris an imaging device for the purpose transmitting an image without additional circuit as taught by (column 2, lines 55-60).





Regarding claim 31, Harris et al discloses ,wherein the analyzer comprises a computer( as shown in figure 6).

Regarding claim 32, Harris et al discloses, an illumination source providing at lest about 75% of illumination energy having a wavelength range from about 100 nm to about 2,000 nm (column 6, lines 40-45).

Regarding claim 33, Harris et al discloses, wherein the particle analyzing system is in air quality monitor (as shown in figure 6).

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L Mack can be reached on (571) 272- 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MH  
March 3, 2007

*M. Hasan*  
Mohammed Hasan  
Examiner, AU-2873